

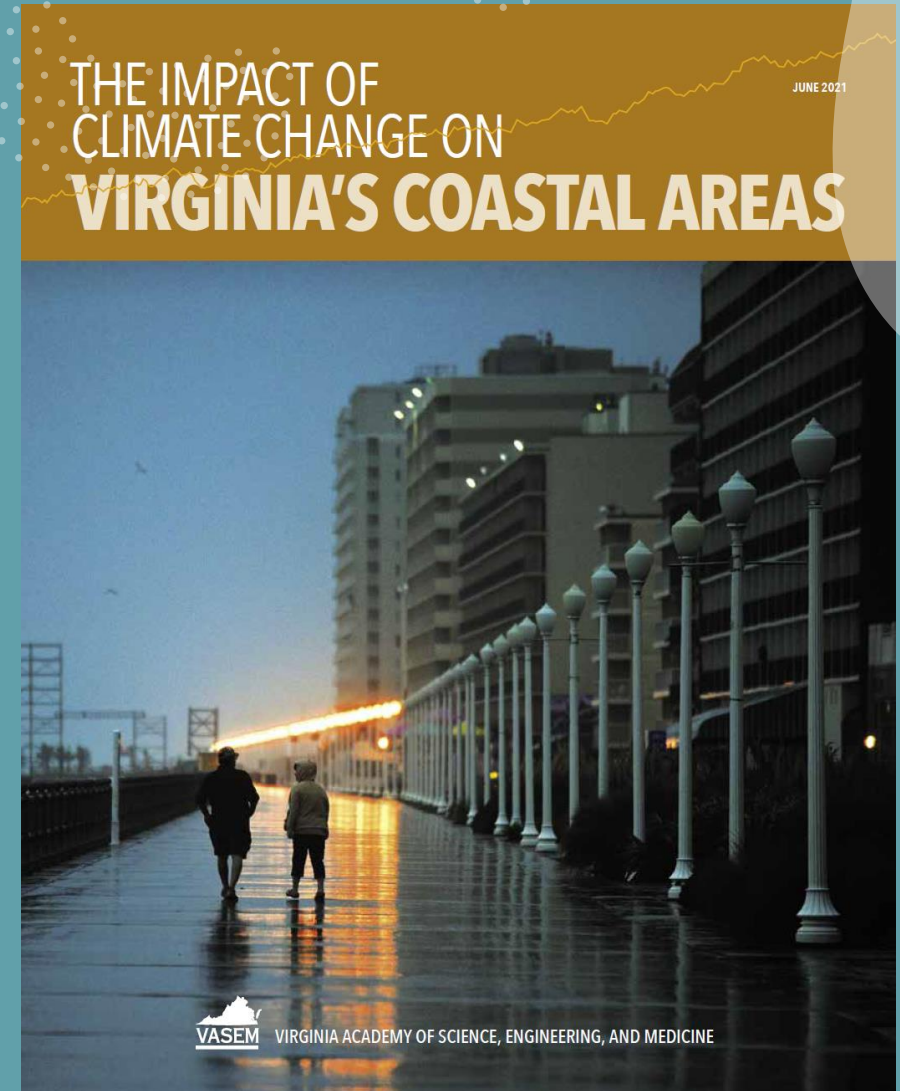
Final Report

The Impact of Climate Change on Virginia's Coastal Areas

Jon Goodall, University of Virginia, Co-chair

Antonio Elias, VASEM, Co-chair

Presentation to JCOTS, August 16, 2021



Study Board Goal

- House Joint Resolution No. 47
- “RESOLVED by the House of Delegates, the Senate concurring, That the Joint Commission on Technology and Science (the Commission) be directed to study the safety, quality of life, and economic consequences of weather and climate-related events on coastal areas in Virginia.”

Board Members



Elizabeth Andrews
Professor and Director
Virginia Coastal Policy Center
William and Mary



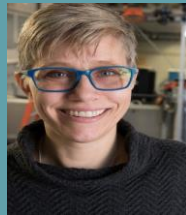
Jonathan Goodall (co-chair)
Professor
University of Virginia



Mark W. Luckenbach
Associate Dean
Professor
VIMS



Christopher "Kit" Chope
Vice President, Sustainability
Virginia Port Authority



Jennifer L. Irish
Professor
Virginia Tech



Elise Miller-Hooks
Hazel Professor
George Mason University



The Honorable John A. Cosgrove, Jr.
Senate of Virginia



Lewis L. Lawrence
Executive Director
Middle Peninsula
Planning District
Commission



Ann C. Phillips
Special Assistant to the
Governor for Coastal
Adaptation and Protection



Jason El Koubi
Executive Vice President
VEDP



Robert W. Lazaro, Jr.
Executive Director
Northern Virginia Regional
Commission



Henry R. ("Speaker") Pollard
Attorney
Williams Mullen



Antonio Elias (co-chair)
VASEM Secretary/Treasurer
Member, National Academy of
Engineering



Bill Leighty
Managing Partner
Decide Smart



Emily Steinhilber
Research Assistant Professor
CCRFR

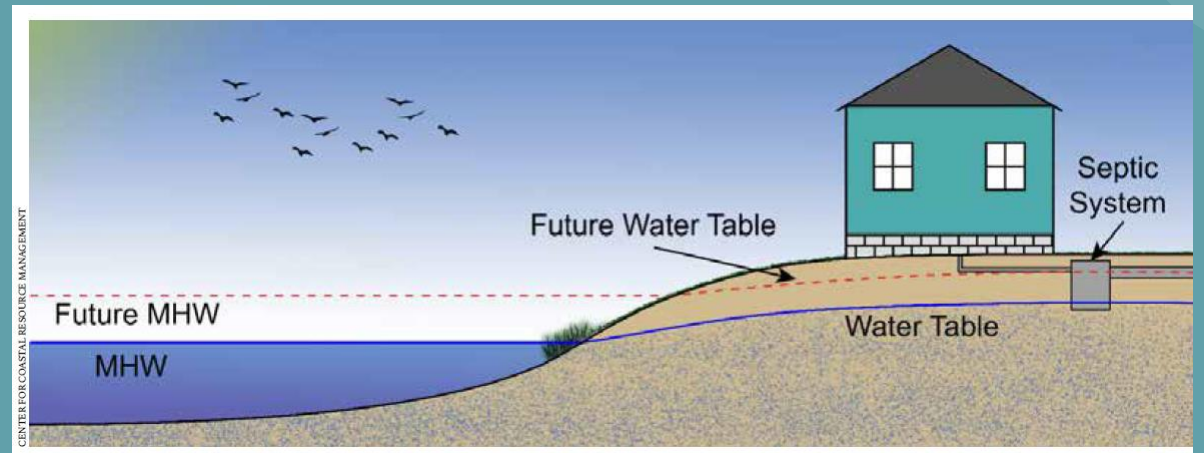
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- Executive Summary
 - Chapter 1. The Elements of Climate Change
 - Chapter 2. Current Impacts on Virginia
 - Chapter 3. Future Impacts on Coastal Urban Areas
 - Chapter 4. Future Impacts on Coastal Rural Areas
 - Chapter 5. Perspectives for Decision-Makers
 - Chapter 6. Recommendations

- You should have all received a copy or will be receiving one shortly.
- Focus today is on the 4 recommendations given in Chapter 6

Brief Examples of Impacts

- Sea level rise, more intense and frequent storms, temperature increases
 - Saltwater intrusion into groundwater
 - Drinking water impacts
 - Agricultural impacts
 - Septic system impacts
 - Recurrent flooding
 - Norfolk has lost 50% of its stormwater infrastructure design capacity
 - Ditch drainage in rural areas remains “full” -- not functioning as designed
 - Virginia Beach estimates recurrent flooding costs the city \$26M per year
- Many more impacts documented in the report ...



Recommendation 1: Establish a Structure for More Effective Collaboration and Coordination

- Coordination across government, business, and academia on intersecting challenges of climate change
- Headed by a statutorily created council modeled after the Council on Virginia's Future (2004-2017) appropriately funded and staffed
- Chaired by the Governor; legislative leaders and citizen members
- Statewide strategic plan focusing all secretariates and agencies on a specific set of goals
- Focused on entire state; not just coastal Virginia

Recommendation 2: Address Gaps in Policy and Procedure

- Establish a substantive budgetary policy and procedure for climate impact review as part of relevant state agency planning that
 - (i) provides equitable opportunity for all stakeholders, including members of underserved or disadvantaged communities
 - (ii) incorporates and facilitates feasible resilience strategies
- Examples for this are provided for areas including
 - Floodplain management and risk
 - Resilience
 - Outreach and equality

Recommendation 3:
Create a Body to
Coordinate and Support
Critical Data Collection
and Technology Transfer
Across the Commonwealth

- Create, fund, and staff a Climate Change and Resilience Resource Center for Virginia
- Board of directors drawn from planning district commissions and other entities representing local governments, the Commonwealth's universities and research institutions, nonprofits, and private firms specializing in environmental mitigation and adaptation
- Charged with synthesizing research and development efforts for Virginia's climate response
- Assist entities in applying for funding from federal, state, and local sources by identifying research priorities and providing seed funding

Recommendation 4: Provide Meaningful Economic Innovation and Incentives to Build a Resilience Economy in Virginia

- Provide incentives for ...
 - businesses to develop innovative resilience-enhancing products, technologies, designs, and services
 - businesses to partner with universities to bring research to practice
 - Universities/colleges to create new workforce development opportunities in building and implementing resilience solutions
- Continue to support existing economic development investments (e.g., a recent GO Virginia grant on coastal resilience)
- Explore making incentives available to smaller local jurisdictions for their specific needs (e.g., septic systems and drainage ditch networks)

Thank you!

- Contact information:
 - Jon Goodall, University of Virginia, Co-chair, goodall@virginia.edu
 - Antonio Elias, VASEM Secretary/Treasurer, Co-chair, antonio.elias@vasem.org
 - Jim Aylor, VASEM President, jha@virginia.edu

